

PATENT COOPERATION TREATY

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

Date of mailing (day/month/year)
20 January 2000 (20.01.00)

International application No.
PCT/IL99/00217

International filing date (day/month/year)
23 April 1999 (23.04.99)

To:

**Assistant Commissioner for Patents
United States Patent and Trademark
Office
Box PCT
Washington, D.C.20231
ÉTATS-UNIS D'AMÉRIQUE**

in its capacity as elected Office

Applicant
BARU, Moshe et al

1. The designated Office is hereby notified of its election made:

in the demand filed with the International Preliminary Examining Authority on:

12 October 1999 (12.10.99)

in a notice effecting later election filed with the International Bureau on:

2. The election was
 was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

<p>The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland</p> <p>Facsimile No.: (41-22) 740.14.35</p>	<p>Authorized officer</p> <p>Juan Cruz</p> <p>Telephone No.: (41-22) 338.83.38</p>
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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : A61K 9/127, 38/37		A1	(11) International Publication Number: WO 99/55306 (43) International Publication Date: 4 November 1999 (04.11.99)
(21) International Application Number: PCT/IL99/00217		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).	
(22) International Filing Date: 23 April 1999 (23.04.99)			
(30) Priority Data: 124224 27 April 1998 (27.04.98) IL			
(71) Applicant (for all designated States except US): OPPERBAS HOLDING B.V. [NL/NL]; Hoekenrode 6-8, NL-1102 BR Amsterdam Zuidoost (NL).			
(72) Inventors; and		Published	
(75) Inventors/Applicants (for US only): BARU, Moshe [IL/IL]; Hahadarim Street, 37012 Pardes Hana (IL). BAR, Liliana [IL/IL]; Menucha VeNachla 49/13, 76247 Rehovot (IL). NUR, Israel [IL/IL]; 79860 Moshav Timurim 277 (IL).		With international search report.	
(74) Agent: REINHOLD COHN AND PARTNERS; P.O. Box 4060, 61040 Tel Aviv (IL).			

(54) Title: PHARMACEUTICAL COMPOSITION COMPRISING FACTOR VIII AND NEUTRAL LIPOSOMES

(57) Abstract

A pharmaceutical composition for parenteral administration comprising a therapeutically effective amount of a protein or polypeptide and substantially neutral colloidal particles. The particles comprise approximately 1-20 mole percent of an amphipathic lipid derivatized with a biocompatible hydrophilic polymer which carries substantially no net charge. The protein or polypeptide is capable of externally binding the colloidal particles, or is capable of binding polyethylene glycol, and is not encapsulated in the colloidal particles. A preferred protein is factor VIII, whose half-life is extended and which is protected from serum inhibitor antibodies by injecting it as a component of the composition.

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
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DE	Germany	LK	Sri Lanka	SE	Sweden		
DK	Denmark	LR	Liberia	SG	Singapore		
EE	Estonia						

PCT

REQUEST

The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty.

For receiving Office use only

International Application No.

International Filing Date

Name of receiving Office and "PCT International Application"

Applicant's or agent's file reference
(if desired) (12 characters maximum) 116856.6 RS

Box No. I TITLE OF INVENTION

Pharmaceutical Composition for Treatment of Blood Coagulation Disorders

Box No. II APPLICANT

Name and address: (Family name followed by given name; for a legal entity, full official address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

OPPERBAS HOLDING B.V.
Hoekendoe 6-8
NL-1102 BR Amsterdam Zuidoost
The Netherlands

This person is also inventor.

Telephone No.

Facsimile No.

Teleprinter No.

State (that is, country) of nationality:
NL

State (that is, country) of residence:
NL

This person is applicant all designated States all designated States except the United States of America the United States of America only the States indicated in the Supplemental Box for the purposes of:

Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

BARU, Moshe
Hehadarim Street
Pardes Hana 37012
Israel

This person is:

applicant only

applicant and inventor

inventor only (If this check-box is marked, do not fill in below.)

State (that is, country) of nationality:
IL

State (that is, country) of residence:
IL

This person is applicant all designated States all designated States except the United States of America the United States of America only the States indicated in the Supplemental Box for the purposes of:

Further applicants and/or (further) inventors are indicated on a continuation sheet.

Box No. IV AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE

The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

REINHOLD COHN AND PARTNERS
P.O.B. 4060
Tel Aviv 61040
Israel

agent

common representative

Telephone No.

+972-3-7109.314

Facsimile No.

+972-3-660.64.05

Teleprinter No.

e-mail: rashrem@cohnpatents.co.il

Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.

LegalStar 1998, Form PCTREQ

See Notes to the request form

Form PCT/RO/101 (first sheet) (July 1998)

Continuation of Box No. III FURTHER APPLICANTS AND/OR (FURTHER) INVENTOR(S)

If none of the following sub-boxes is used, this sheet is not to be included in the request.

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

BAR, Liliela
49/13 Menucha VeNachla
Rehovot 76247
Israel

This person is:

applicant only
 applicant and inventor
 inventor only (If this check-box is marked, do not fill in below.)

State (that is, country) of nationality:
ILState (that is, country) of residence:
IL

This person is applicant all designated States all designated States except the United States of America the United States of America only the States indicated in the Supplemental Box for the purposes of:

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

NUR, Israel
Moshav Timurim No. 277
Israel 79860

This person is:

applicant only
 applicant and inventor
 inventor only (If this check-box is marked, do not fill in below.)

State (that is, country) of nationality:
ILState (that is, country) of residence:
IL

This person is applicant all designated States all designated States except the United States of America the United States of America only the States indicated in the Supplemental Box for the purposes of:

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

This person is:

applicant only
 applicant and inventor
 inventor only (If this check-box is marked, do not fill in below.)

State (that is, country) of nationality:

State (that is, country) of residence:

This person is applicant all designated States all designated States except the United States of America the United States of America only the States indicated in the Supplemental Box for the purposes of:

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

This person is:

applicant only
 applicant and inventor
 inventor only (If this check-box is marked, do not fill in below.)

State (that is, country) of nationality:

State (that is, country) of residence:

This person is applicant all designated States all designated States except the United States of America the United States of America only the States indicated in the Supplemental Box for the purposes of:

Further applicants and/or (further) inventors are indicated on another continuation sheet

Box No.V DESIGNATION OF STATES

The following designations are hereby made under Rule 4.9(a) (mark the applicable check-boxes; at least one must be marked):
 Regional Patent

AP ARIPO Patent: GH Ghana, GM Gambia, KE Kenya, LS Lesotho, MW Malawi, SD Sudan, SZ Swaziland, UG Uganda, ZW Zimbabwe, and any other State which is a Contracting State of the Harare Protocol and of the PCT

EA Eurasian Patent: AM Armenia, AZ Azerbaijan, BY Belarus, KG Kyrgyzstan, KZ Kazakhstan, MD Republic of Moldova, RU Russian Federation, TJ Tajikistan, TM Turkmenistan, and any other State which is a Contracting State of the Eurasian Patent Convention and of the PCT

EP European Patent: AT Austria, BE Belgium, CH and LI Switzerland and Liechtenstein, CY Cyprus, DE Germany, DK Denmark, ES Spain, FI Finland, FR France, GB United Kingdom, GR Greece, IE Ireland, IT Italy, LU Luxembourg, MC Monaco, NL Netherlands, PT Portugal, SE Sweden, and any other State which is a Contracting State of the European Patent Convention and of the PCT

OA OAPI Patent: BF Burkina Faso, BJ Benin, CF Central African Republic, CG Congo, CI Côte d'Ivoire, CM Cameroon, GA Gabon, GN Guinea, GW Guinea-Bissau, ML Mali, MR Mauritania, NE Niger, SN Senegal, TD Chad, TG Togo, and any other State which is a member State of OAPI and a Contracting State of the PCT (if other kind of protection or treatment desired, specify on dotted line)

National Patent (if other kind of protection or treatment desired, specify on dotted line):

<input checked="" type="checkbox"/> AL Albania	<input checked="" type="checkbox"/> LS Lesotho
<input checked="" type="checkbox"/> AM Armenia	<input checked="" type="checkbox"/> LT Lithuania
<input checked="" type="checkbox"/> AT Austria	<input checked="" type="checkbox"/> LU Luxembourg
<input checked="" type="checkbox"/> AU Australia	<input checked="" type="checkbox"/> LV Latvia
<input checked="" type="checkbox"/> AZ Azerbaijan	<input checked="" type="checkbox"/> MD Republic of Moldova
<input checked="" type="checkbox"/> BA Bosnia and Herzegovina	<input checked="" type="checkbox"/> MG Madagascar
<input checked="" type="checkbox"/> BB Barbados	<input checked="" type="checkbox"/> MK The former Yugoslav Republic of Macedonia
<input checked="" type="checkbox"/> BG Bulgaria	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> BR Brazil	<input checked="" type="checkbox"/> MN Mongolia
<input checked="" type="checkbox"/> BY Belarus	<input checked="" type="checkbox"/> MW Malawi
<input checked="" type="checkbox"/> CA Canada	<input checked="" type="checkbox"/> MX Mexico
<input checked="" type="checkbox"/> CH and LI Switzerland and Liechtenstein	<input checked="" type="checkbox"/> NO Norway
<input checked="" type="checkbox"/> CN China	<input checked="" type="checkbox"/> NZ New Zealand
<input checked="" type="checkbox"/> CU Cuba	<input checked="" type="checkbox"/> PL Poland
<input checked="" type="checkbox"/> CZ Czech Republic	<input checked="" type="checkbox"/> PT Portugal
<input checked="" type="checkbox"/> DE Germany	<input checked="" type="checkbox"/> RO Romania
<input checked="" type="checkbox"/> DK Denmark	<input checked="" type="checkbox"/> RU Russian Federation
<input checked="" type="checkbox"/> EE Estonia	<input checked="" type="checkbox"/> SD Sudan
<input checked="" type="checkbox"/> ES Spain	<input checked="" type="checkbox"/> SE Sweden
<input checked="" type="checkbox"/> FI Finland	<input checked="" type="checkbox"/> SG Singapore
<input checked="" type="checkbox"/> GB United Kingdom	<input checked="" type="checkbox"/> SI Slovenia
<input checked="" type="checkbox"/> GD Grenada	<input checked="" type="checkbox"/> SK Slovakia
<input checked="" type="checkbox"/> GE Georgia	<input checked="" type="checkbox"/> SL Sierra Leone
<input checked="" type="checkbox"/> GH Ghana	<input checked="" type="checkbox"/> TJ Tajikistan
<input checked="" type="checkbox"/> GM Gambia	<input checked="" type="checkbox"/> TM Turkmenistan
<input checked="" type="checkbox"/> HR Croatia	<input checked="" type="checkbox"/> TR Turkey
<input checked="" type="checkbox"/> HU Hungary	<input checked="" type="checkbox"/> TT Trinidad and Tobago
<input checked="" type="checkbox"/> ID Indonesia	<input checked="" type="checkbox"/> UA Ukraine
<input checked="" type="checkbox"/> IL Israel	<input checked="" type="checkbox"/> UG Uganda
<input checked="" type="checkbox"/> IN India	<input checked="" type="checkbox"/> US United States of America
<input checked="" type="checkbox"/> IS Iceland	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> JP Japan	<input checked="" type="checkbox"/> UZ Uzbekistan
<input checked="" type="checkbox"/> KE Kenya	<input checked="" type="checkbox"/> VN Viet Nam
<input checked="" type="checkbox"/> KG Kyrgyzstan	<input checked="" type="checkbox"/> YU Yugoslavia
<input checked="" type="checkbox"/> KP Democratic People's Republic of Korea	<input checked="" type="checkbox"/> ZW Zimbabwe
<input checked="" type="checkbox"/> KR Republic of Korea	<input type="checkbox"/>
<input checked="" type="checkbox"/> KZ Kazakhstan	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> LC Saint Lucia	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> LK Sri Lanka	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> LR Liberia	<input checked="" type="checkbox"/>

Check-boxes reserved for designating States (for the purposes of a national patent) which have become party to the PCT after issuance of this sheet

AE United Arab Emirates

ZA South Africa

.....

Precautionary Designation Statement: In addition to the designations made above, the applicant also makes under Rule 4.9(b) all other designations which would be permitted under the PCT except any designation(s) indicated in the Supplemental Box as being excluded from the scope of this statement. The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit. (Confirmation of a designation consists of the filing of a notice specifying that designation and the payment of the designation and confirmation fees. Confirmation must reach the receiving Office within the 15-month time limit.)

Box No. VI PRIORITY CLAIM		Further priority claims are indicated in the Supplemental Box.		
Filing date of earlier application (day/month/year)	Number of earlier application	Where earlier application is:		
		national application: country	regional application: regional Office	international application: receiving Office
item (1) 27 April 1998 (23.04.98)	124224	IL		
item (2)				
item (3)				

The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) (only if the earlier application was filed with the Office which for the purposes of the present international application is the receiving Office) identified above as item(s): (1)
• Where the earlier application is an ARIPO application, it is mandatory to indicate in the Supplemental Box at least one country party to the Paris Convention for the Protection of Industrial Property for which that earlier application was filed (Rule 4.10(b)(1)). See Supplemental Box.

Box No. VII INTERNATIONAL SEARCHING AUTHORITY

Choice of International Searching Authority (ISA)
(if two or more International Searching Authorities are competent to carry out the international search, indicate the authority chosen; the two-letter code may be used):

Request to use results of earlier search; reference to that search (if an earlier search has been carried out by or requested from the International Searching Authority):
Date (day/month/year) Number Country (or regional Office)

ISA/ EP

Box No. VIII CHECK LIST: LANGUAGE OF FILING

This international application contains the following number of sheets:	This international application is accompanied by the item(s) marked below:	
request : 4	1. <input checked="" type="checkbox"/> fee calculation sheet	
description (excluding sequence listing part) : 22	2. <input checked="" type="checkbox"/> separate signed power of attorney	
claims : 3	3. <input type="checkbox"/> copy of general power of attorney; reference number, if any:	
abstract : 1	4. <input type="checkbox"/> statement explaining lack of signature	
drawings : 1	5. <input type="checkbox"/> priority document(s) identified in Box No. VI as item(s):	
sequence listing part of description : _____	6. <input type="checkbox"/> translation of international application into (language):	
Total number of sheets : 31	7. <input type="checkbox"/> separate indications concerning deposited microorganism or other biological material	
	8. <input type="checkbox"/> nucleotide and/or amino acid sequence listing in computer readable form	
	9. <input type="checkbox"/> other (specify):	

Figure of the drawings which should accompany the abstract: Fig. 1 Language of filing of the international application: ENGLISH

Box No. IX SIGNATURE OF APPLICANT OR AGENT

Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the request).

PATINKIN Jonathan
Agent for REINHOLD COHN AND PARTNERS

For receiving Office use only	
1. Date of actual receipt of the purported international application:	2. Drawings: <input type="checkbox"/> received: <input type="checkbox"/> not received:
3. Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application:	
4. Date of timely receipt of the required corrections under PCT Article 11(2):	
5. International Searching Authority (if two or more are competent): ISA/	
6. <input type="checkbox"/> Transmittal of search copy delayed until search fee is paid	

For International Bureau use only	
Date of receipt of the record copy by the International Bureau:	

PCT
FEES CALCULATION SHEET
Annex to the Request

For receiving Office use only

International application No.

Applicant's or agent's
file reference 116855.6 RS

Date stamp of the receiving Office

Applicant
OPPERBAS HOLDING B.V.

CALCULATION OF PRESCRIBED FEES

1. TRANSMITTAL FEE

NIS 425- T

2. SEARCH FEE

US \$ 1,338.00 S

International search to be carried out by EP

(If two or more International Searching Authorities are competent in relation to the international application, indicate the name of the Authority which is chosen to carry out the international search.)

3. INTERNATIONAL FEE

Basic Fee

The international application contains 31 sheets.

first 30 sheets US \$ 455.00 b1

1 x \$10.00 = US \$ 10.00 b2

remaining sheets additional amount

Add amounts entered at b₁ and b₂ and enter total at B US \$ 465.00 B

Designation Fees

The international application contains all designations.

10 x 105.00 = US \$ 1,050.00 D

number of designation fees amount of designation fee
payable (maximum 11)

Add amounts entered at B and D and enter total at I US \$ 1,515.00 I

(Applicants from certain States are entitled to a reduction of 75% of the international fee. Where the applicant is (or all applicants are) so entitled, the total to be entered at I is 25% of the sum of the amounts entered at B and D.)

4. FEE FOR PRIORITY DOCUMENT (if applicable)

NIS 73.40 P

5. TOTAL FEES PAYABLE

Add amounts entered at T, S, I and P, and enter total in the TOTAL box

NIS 498.40 \$2,853.00

TOTAL

The designation fees are not paid at this time.

MODE OF PAYMENT

authorization to charge
deposit account (see below)

bank draft

coupons

cheque

cash

other (specify):

postal money order

revenue stamps

DEPOSIT ACCOUNT AUTHORIZATION (this mode of payment may not be available at all receiving Offices)

The RO/ is hereby authorized to charge the total fees indicated above to my deposit account.

is hereby authorized to charge any deficiency or credit any overpayment in the total fees indicated above to my deposit account.

is hereby authorized to charge the fee for preparation and transmittal of the priority document to the International Bureau of WIPO to my deposit account.

Deposit Account Number

Date (day/month/year)

Signature

Form PCT/RO/101 (Annex) (July 1998)

LegalStar 1998 Form PCT/FEES

See Notes to the fee calculation sheet

17. A use according to Claim 15 wherein said patient has developed FVIII inhibitor antibodies.

18. A pharmaceutical composition for parenteral administration comprising a therapeutically effective amount of a protein or polypeptide and substantially neutral colloidal particles, said particles comprising approximately 1-20 mole percent of an amphipathic lipid derivatized with a biocompatible hydrophilic polymer, said polymer carrying substantially no net charge,

wherein said protein or polypeptide is selected from the group consisting of:

(a) proteins or polypeptides capable of externally binding said colloidal particles; and
(b) proteins of polypeptides capable of binding polyethylene glycol, and wherein said protein or polypeptide is not encapsulated in said colloidal particles.

19. Use of a colloidal particle in the preparation of a pharmaceutical composition for parenteral administration comprising a therapeutically effective amount of a protein or polypeptide and substantially neutral colloidal particles, said particles comprising approximately 1-20 mole percent of an amphipathic lipid derivatized with a biocompatible hydrophilic polymer, said polymer carrying substantially no net charge,

wherein said protein or polypeptide is selected from the group consisting of:

(a) proteins or polypeptides capable of externally binding said colloidal particles; and
(b) proteins of polypeptides capable of binding polyethylene glycol, and wherein said protein or polypeptide is not encapsulated in said colloidal particles.

PATENT COOPERATION TREATY

PCT

REC'D 21 AUG 2000

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

16

Applicant's or agent's file reference 116856.6 LK	FOR FURTHER ACTION		See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/IL99/00217	International filing date (day/month/year) 23/04/1999	Priority date (day/month/year) 27/04/1998	
International Patent Classification (IPC) or national classification and IPC A61K9/127			
Applicant OPPERBAS HOLDING B.V. et al.			
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 4 sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of 1 sheets.</p>			
<p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application 			

Date of submission of the demand 12/10/1999	Date of completion of this report 17.08.2000
Name and mailing address of the international preliminary examining authority: European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer Herrera, S Telephone No. +49 89 2399 8464



**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/IL99/00217

I. Basis of the report

1. This report has been drawn on the basis of (*substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.*):

Description, pages:

1-22 as originally filed

Claims, No.:

1-16 as originally filed

17-19 as received on 25/04/2000 with letter of 17/04/2000

Drawings, sheets:

1/1 as originally filed

2. The amendments have resulted in the cancellation of:

the description, pages:
 the claims, Nos.:
 the drawings, sheets:

3. This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

4. Additional observations, if necessary:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/IL99/00217

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims 1-19
	No: Claims
Inventive step (IS)	Yes: Claims 1-19
	No: Claims
Industrial applicability (IA)	Yes: Claims 1-13,18
	No: Claims 14-17,19

2. Citations and explanations

see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/IL99/00217

To section V

1. Reference is made to the following documents:

D1: US-A-5 013 556

D2: SAHLI H ET AL: 'Interactions of poly(lactic acid) and poly(lactic acid-co-ethylene oxide) nanoparticles with the plasma factors of the coagulation system' BIOMATERIALS, vol. 18, no. 4, 1 February 1997 (1997-02-01), page 281-288

D3: WO 94 21235 A

D4: G. BLUME ET AL: 'Specific targeting with poly(ethylene glycol)-modified liposomes: coupling of homing devices to the ends of the polymeric chains combines effective target binding with long circulation times' BIOCHIMICA ET BIOPHYSICA ACTA, vol. 1149, 1993, pages 180-184

2. The subject-matter of the present claims 1-19 appears to be novel over the cited prior art (Art 33 (2) PCT).

3. The used liposomes are known from e.g. D1. However, in D1 the liposomes are used to entrap certain compounds, something excluded from the present claims. The fact that the Factor VIII is not entrapped results in smaller particles, which have a longer half life in vivo. It could not be deduced from the prior art that, even though the active compound is not entrapped in the liposome, the use of the liposomes will result in a prolonged release of the active compound. The subject-matter of the present claim 1-19 therefore appears to involve the necessary inventive step (Art 33 (3) PCT).

4. For the assessment of the present claims 14-17 and 19 on the question whether they are industrially applicable, no unified criteria exist in the PCT Contracting States. The patentability can also be dependent upon the formulation of the claims. The EPO, for example, does not recognize as industrially applicable the subject-matter of claims to the use of a compound in medical treatment, but may allow, however, claims to a known compound for first use in medical treatment and the use of such a compound for the manufacture of a medicament for a new medical treatment.

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 116856.6 RS	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/IL 99/00217	International filing date (day/month/year) 23/04/1999	(Earliest) Priority Date (day/month/year) 27/04/1998
Applicant OPPERBAS HOLDING B.V. et al.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

contained in the international application in written form.

filed together with the international application in computer readable form.

furnished subsequently to this Authority in written form.

furnished subsequently to this Authority in computer readable form.

the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. **Certain claims were found unsearchable** (See Box I).

3. **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

the text is approved as submitted by the applicant.

the text has been established by this Authority to read as follows:

PHARMACEUTICAL COMPOSITION COMPRISING FACTOR VIII AND NEUTRAL LIPOSOMES

5. With regard to the **abstract**,

the text is approved as submitted by the applicant.

the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

as suggested by the applicant.

because the applicant failed to suggest a figure.

because this figure better characterizes the invention.

None of the figures.

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IL 99/00217

A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 A61K9/127 A61K38/37

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 013 556 A (WOODLE MARTIN C ET AL) 7 May 1991 (1991-05-07) cited in the application column 12, line 7-21 abstract ----	19
Y	SAHLI H ET AL: "Interactions of poly(lactic acid) and poly(lactic acid-co-ethylene oxide) nanoparticles with the plasma factors of the coagulation system" BIOMATERIALS, vol. 18, no. 4, 1 February 1997 (1997-02-01), page 281-288 XP004017219 ISSN: 0142-9612 abstract ----	1-18
Y	----- -/-	1-18

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

° Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

29 July 1999

Date of mailing of the international search report

05/08/1999

Name and mailing address of the ISA

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Fax: (+31-70) 340-3016

Authorized officer

Herrera, S

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IL 99/00217

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 94 21235 A (LIPOSOME TECHNOLOGY INC) 29 September 1994 (1994-09-29) cited in the application the whole document ---	1-19
A	G. BLUME ET AL: "Specific targeting with poly(ethylene glycol)-modified liposomes: coupling of homing devices to the ends of the polymeric chains combines effective target binding with long circulation times" BIOCHIMICA ET BIOPHYSICA ACTA, vol. 1149, 1993, pages 180-184, XP000406105 Amsterdam, NL abstract -----	1-19

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IL 99/00217

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